



PCT

RAW SEQUENCE LISTING

DATE: 12/22/2004

PATENT APPLICATION: US/10/517,905

TIME: 16:05:53

Input Set : A:\335026.txt

Output Set: N:\CRF4\12222004\J517905.raw

3 <110> APPLICANT: Oregon Health & Science University
 4 Michael, Heinrich Charles
 5 Corless, Christopher Lee
 6 Fletcher, Jonathan Alfred
 7 Demetri, George D.
 9 <120> TITLE OF INVENTION: ACTIVATING MUTATIONS OF PLATELET DERIVED GROWTH FACTOR
 RECEPTOR

10 ALPHA (PDGFRA) AS DIAGNOSTIC MARKERS AND THERAPEUTIC TARGETS
 12 <130> FILE REFERENCE: 899-65892-02
 C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/517,905
 C--> 14 <141> CURRENT FILING DATE: 2004-12-10

14 <150> PRIOR APPLICATION NUMBER: US 60/389,107
 15 <151> PRIOR FILING DATE: 2002-06-13
 17 <150> PRIOR APPLICATION NUMBER: US 60/438,899
 18 <151> PRIOR FILING DATE: 2003-01-08
 20 <160> NUMBER OF SEQ ID NOS: 27
 22 <170> SOFTWARE: PatentIn version 3.2
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 6633

Does Not Comply
Corrected Diskette Needed

p.6

26 <212> TYPE: DNA
 27 <213> ORGANISM: Homo sapiens
 30 <220> FEATURE:
 31 <221> NAME/KEY: CDS
 32 <222> LOCATION: (395)..(3664)
 34 <400> SEQUENCE: 1
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 37 gtaagagcaa aaagcgaagg cgcaatctgg aactgaggag attcggagcg cagggagttt 120
 39 gagagaaact tttattttga agagaccaag gttgaggggg ggcttatttc ctgacagcta 180
 41 tttacttaga gcaaatgatt agtttttagaa ggatggacta taacattgaa tcaattacaa 240
 43 aacgcggttt ttgagcccat tactgttgga gctacagggg gagaaacagg aggagactgc 300
 45 aagagatcat ttgggaaggc cgtgggcaag ctctttactc catgtgtggg acattcattg 360
 47 cggataaca tcggaggaga agtttccag agct atg ggg act tcc cat ccg gcg 415
 48 Met Gly Thr Ser His Pro Ala
 49 1 5
 51 ttc ctg gtc tta ggc tgt ctt ctc aca ggg ctg agc cta atc ctc tgc 463
 52 Phe Leu Val Leu Gly Cys Leu Leu Thr Gly Leu Ser Leu Ile Leu Cys
 53 10 15 20
 55 cag ctt tca tta ccc tct atc ctt cca aat gaa aat gaa aag gtt gtg 511
 56 Gln Leu Ser Leu Pro Ser Ile Leu Pro Asn Glu Asn Glu Lys Val Val
 57 25 30 35
 59 cag ctg aat tca tcc ttt tct ctg aga tgc ttt ggg gag agt gaa gtg 559
 60 Gln Leu Asn Ser Ser Phe Ser Leu Arg Cys Phe Gly Glu Ser Glu Val
 61 40 45 50 55
 63 agc tgg cag tac ccc atg tct gaa gaa gag agc tcc gat gtg gaa atc 607

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64	Ser	Trp	Gln	Tyr	Pro	Met	Ser	Glu	Glu	Glu	Ser	Ser	Asp	Val	Glu	Ile	
65					60					65					70		
67	aga	aat	gaa	gaa	aac	aac	agc	ggc	ctt	ttt	gtg	acg	gtc	ttg	gaa	gtg	655
68	Arg	Asn	Glu	Glu	Asn	Asn	Ser	Gly	Leu	Phe	Val	Thr	Val	Leu	Glu	Val	
69				75					80					85			
71	agc	agt	gcc	tcg	gcg	gcc	cac	aca	ggg	ttg	tac	act	tgc	tat	tac	aac	703
72	Ser	Ser	Ala	Ser	Ala	Ala	His	Thr	Gly	Leu	Tyr	Thr	Cys	Tyr	Tyr	Asn	
73			90					95					100				
75	cac	act	cag	aca	gaa	gag	aat	gag	ctt	gaa	ggc	agg	cac	att	tac	atc	751
76	His	Thr	Gln	Thr	Glu	Glu	Asn	Glu	Leu	Glu	Gly	Arg	His	Ile	Tyr	Ile	
77		105					110					115					
79	tat	gtg	cca	gac	cca	gat	gta	gcc	ttt	gta	cct	cta	gga	atg	acg	gat	799
80	Tyr	Val	Pro	Asp	Pro	Asp	Val	Ala	Phe	Val	Pro	Leu	Gly	Met	Thr	Asp	
81	120					125				130				135			
83	tat	tta	gtc	atc	gtg	gag	gat	gat	gat	tct	gcc	att	ata	cct	tgt	cgc	847
84	Tyr	Leu	Val	Ile	Val	Glu	Asp	Asp	Asp	Ser	Ala	Ile	Ile	Pro	Cys	Arg	
85				140					145					150			
87	aca	act	gat	ccc	gag	act	cct	gta	acc	tta	cac	aac	agt	gag	ggg	gtg	895
88	Thr	Thr	Asp	Pro	Glu	Thr	Pro	Val	Thr	Leu	His	Asn	Ser	Glu	Gly	Val	
89			155					160					165				
91	gta	cct	gcc	tcc	tac	gac	agc	aga	cag	ggc	ttt	aat	ggg	acc	ttc	act	943
92	Val	Pro	Ala	Ser	Tyr	Asp	Ser	Arg	Gln	Gly	Phe	Asn	Gly	Thr	Phe	Thr	
93			170					175				180					
95	gta	ggg	ccc	tat	atc	tgt	gag	gcc	acc	gtc	aaa	gga	aag	aag	ttc	cag	991
96	Val	Gly	Pro	Tyr	Ile	Cys	Glu	Ala	Thr	Val	Lys	Gly	Lys	Lys	Phe	Gln	
97		185				190				195							
99	acc	atc	cca	ttt	aat	ggt	tat	gct	tta	aaa	gca	aca	tca	gag	ctg	gat	1039
100	Thr	Ile	Pro	Phe	Asn	Val	Tyr	Ala	Leu	Lys	Ala	Thr	Ser	Glu	Leu	Asp	
101	200					205				210				215			
103	cta	gaa	atg	gaa	gct	ctt	aaa	acc	gtg	tat	aag	tca	ggg	gaa	acg	att	1087
104	Leu	Glu	Met	Glu	Ala	Leu	Lys	Thr	Val	Tyr	Lys	Ser	Gly	Glu	Thr	Ile	
105				220					225					230			
107	gtg	gtc	acc	tgt	gct	ggt	ttt	aac	aat	gag	gtg	ggt	gac	ctt	caa	tgg	1135
108	Val	Val	Thr	Cys	Ala	Val	Phe	Asn	Asn	Glu	Val	Val	Asp	Leu	Gln	Trp	
109			235					240					245				
111	act	tac	cct	gga	gaa	gtg	aaa	ggc	aaa	ggc	atc	aca	atg	ctg	gaa	gaa	1183
112	Thr	Tyr	Pro	Gly	Glu	Val	Lys	Gly	Lys	Gly	Ile	Thr	Met	Leu	Glu	Glu	
113			250					255				260					
115	atc	aaa	gtc	cca	tcc	atc	aaa	ttg	gtg	tac	act	ttg	acg	gtc	ccc	gag	1231
116	Ile	Lys	Val	Pro	Ser	Ile	Lys	Leu	Val	Tyr	Thr	Leu	Thr	Val	Pro	Glu	
117		265				270				275							
119	gcc	acg	gtg	aaa	gac	agt	gga	gat	tac	gaa	tgt	gct	gcc	cgc	cag	gct	1279
120	Ala	Thr	Val	Lys	Asp	Ser	Gly	Asp	Tyr	Glu	Cys	Ala	Ala	Arg	Gln	Ala	
121	280					285				290				295			
123	acc	agg	gag	gtc	aaa	gaa	atg	aag	aaa	gtc	act	att	tct	gtc	cat	gag	1327
124	Thr	Arg	Glu	Val	Lys	Glu	Met	Lys	Lys	Val	Thr	Ile	Ser	Val	His	Glu	
125				300					305					310			
127	aaa	ggt	ttc	att	gaa	atc	aaa	ccc	acc	ttc	agc	cag	ttg	gaa	gct	gtc	1375
128	Lys	Gly	Phe	Ile	Glu	Ile	Lys	Pro	Thr	Phe	Ser	Gln	Leu	Glu	Ala	Val	

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131 aac ctg cat gaa gtc aaa cat ttt gtt gta gag gtg cgg gcc tac cca				1423
132 Asn Leu His Glu Val Lys His Phe Val Val Glu Val Arg Ala Tyr Pro				
133 330 335 340				
135 cct ccc agg ata tcc tgg ctg aaa aac aat ctg act ctg att gaa aat				1471
136 Pro Pro Arg Ile Ser Trp Leu Lys Asn Asn Leu Thr Leu Ile Glu Asn				
137 345 350 355				
139 ctc act gag atc acc act gat gtg gaa aag att cag gaa ata agg tat				1519
140 Leu Thr Glu Ile Thr Thr Asp Val Glu Lys Ile Gln Glu Ile Arg Tyr				
141 360 365 370 375				
143 cga agc aaa tta aag ctg atc cgt gct aag gaa gaa gac agt ggc cat				1567
144 Arg Ser Lys Leu Lys Leu Ile Arg Ala Lys Glu Glu Asp Ser Gly His				
145 380 385 390				
147 tat act att gta gct caa aat gaa gat gct gtg aag agc tat act ttt				1615
148 Tyr Thr Ile Val Ala Gln Asn Glu Asp Ala Val Lys Ser Tyr Thr Phe				
149 395 400 405				
151 gaa ctg tta act caa gtt cct tca tcc att ctg gac ttg gtc gat gat				1663
152 Glu Leu Leu Thr Gln Val Pro Ser Ser Ile Leu Asp Leu Val Asp Asp				
153 410 415 420				
155 cac cat ggc tca act ggg gga cag acg gtg agg tgc aca gct gaa ggc				1711
156 His His Gly Ser Thr Gly Gly Gln Thr Val Arg Cys Thr Ala Glu Gly				
157 425 430 435				
159 acg ccg ctt cct gat att gag tgg atg ata tgc aaa gat att aag aaa				1759
160 Thr Pro Leu Pro Asp Ile Glu Trp Met Ile Cys Lys Asp Ile Lys Lys				
161 440 445 450 455				
163 tgt aat aat gaa act tcc tgg act att ttg gcc aac aat gtc tca aac				1807
164 Cys Asn Asn Glu Thr Ser Trp Thr Ile Leu Ala Asn Asn Val Ser Asn				
165 460 465 470				
167 atc atc acg gag atc cac tcc cga gac agg agt acc gtg gag ggc cgt				1855
168 Ile Ile Thr Glu Ile His Ser Arg Asp Arg Ser Thr Val Glu Gly Arg				
169 475 480 485				
171 gtg act ttc gcc aaa gtg gag gag acc atc gcc gtg cga tgc ctg gct				1903
172 Val Thr Phe Ala Lys Val Glu Glu Thr Ile Ala Val Arg Cys Leu Ala				
173 490 495 500				
175 aag aat ctc ctt gga gct gag aac cga gag ctg aag ctg gtg gct ccc				1951
176 Lys Asn Leu Leu Gly Ala Glu Asn Arg Glu Leu Lys Leu Val Ala Pro				
177 505 510 515				
179 acc ctg cgt tct gaa ctc acg gtg gct gct gca gtc ctg gtg ctg ttg				1999
180 Thr Leu Arg Ser Glu Leu Thr Val Ala Ala Ala Val Leu Val Leu Leu				
181 520 525 530 535				
183 gtg att gtg atc atc tca ctt att gtc ctg gtt gtc att tgg aaa cag				2047
184 Val Ile Val Ile Ile Ser Leu Ile Val Leu Val Val Ile Trp Lys Gln				
185 540 545 550				
187 aaa ccg agg tat gaa att cgc tgg agg gtc att gaa tca atc agc ccg				2095
188 Lys Pro Arg Tyr Glu Ile Arg Trp Arg Val Ile Glu Ser Ile Ser Pro				
189 555 560 565				
191 gat gga cat gaa tat att tat gtg gac ccg atg cag ctg cct tat gac				2143
192 Asp Gly His Glu Tyr Ile Tyr Val Asp Pro Met Gln Leu Pro Tyr Asp				
193 570 575 580				

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197		585					590					595					
199	ggg	tct	gga	gcg	ttt	ggg	aag	gtg	ggt	gaa	gga	aca	gcc	tat	gga	tta	2239
200	Gly	Ser	Gly	Ala	Phe	Gly	Lys	Val	Val	Glu	Gly	Thr	Ala	Tyr	Gly	Leu	
201	600					605				610					615		
203	agc	cgg	tcc	caa	cct	gtc	atg	aaa	ggt	gca	gtg	aag	atg	cta	aaa	ccc	2287
204	Ser	Arg	Ser	Gln	Pro	Val	Met	Lys	Val	Ala	Val	Lys	Met	Leu	Lys	Pro	
205					620					625					630		
207	acg	gcc	aga	tcc	agt	gaa	aaa	caa	gct	ctc	atg	tct	gaa	ctg	aag	ata	2335
208	Thr	Ala	Arg	Ser	Ser	Glu	Lys	Gln	Ala	Leu	Met	Ser	Glu	Leu	Lys	Ile	
209					635					640					645		
211	atg	act	cac	ctg	ggg	cca	cat	ttg	aac	att	gta	aac	ttg	ctg	gga	gcc	2383
212	Met	Thr	His	Leu	Gly	Pro	His	Leu	Asn	Ile	Val	Asn	Leu	Leu	Gly	Ala	
213					650					655					660		
215	tgc	acc	aag	tca	ggc	ccc	att	tac	atc	atc	aca	gag	tat	tgc	ttc	tat	2431
216	Cys	Thr	Lys	Ser	Gly	Pro	Ile	Tyr	Ile	Ile	Thr	Glu	Tyr	Cys	Phe	Tyr	
217		665						670					675				
219	gga	gat	ttg	gtc	aac	tat	ttg	cat	aag	aat	agg	gat	agc	ttc	ctg	agc	2479
220	Gly	Asp	Leu	Val	Asn	Tyr	Leu	His	Lys	Asn	Arg	Asp	Ser	Phe	Leu	Ser	
221	680					685				690					695		
223	cac	cac	cca	gag	aag	cca	aag	aaa	gag	ctg	gat	atc	ttt	gga	ttg	aac	2527
224	His	His	Pro	Glu	Lys	Pro	Lys	Lys	Glu	Leu	Asp	Ile	Phe	Gly	Leu	Asn	
225					700					705					710		
227	cct	gct	gat	gaa	agc	aca	cgg	agc	tat	ggt	att	tta	tct	ttt	gaa	aac	2575
228	Pro	Ala	Asp	Glu	Ser	Thr	Arg	Ser	Tyr	Val	Ile	Leu	Ser	Phe	Glu	Asn	
229					715					720					725		
231	aat	ggt	gac	tac	atg	gac	atg	aag	cag	gct	gat	act	aca	cag	tat	gtc	2623
232	Asn	Gly	Asp	Tyr	Met	Asp	Met	Lys	Gln	Ala	Asp	Thr	Thr	Gln	Tyr	Val	
233					730					735					740		
235	ccc	atg	cta	gaa	agg	aaa	gag	ggt	tct	aaa	tat	tcc	gac	atc	cag	aga	2671
236	Pro	Met	Leu	Glu	Arg	Lys	Glu	Val	Ser	Lys	Tyr	Ser	Asp	Ile	Gln	Arg	
237		745						750					755				
239	tca	ctc	tat	gat	cgt	cca	gcc	tca	tat	aag	aag	aaa	tct	atg	tta	gac	2719
240	Ser	Leu	Tyr	Asp	Arg	Pro	Ala	Ser	Tyr	Lys	Lys	Lys	Ser	Met	Leu	Asp	
241	760					765				770					775		
243	tca	gaa	gtc	aaa	aac	ctc	ctt	tca	gat	gat	aac	tca	gaa	ggc	ctt	act	2767
244	Ser	Glu	Val	Lys	Asn	Leu	Leu	Ser	Asp	Asp	Asn	Ser	Glu	Gly	Leu	Thr	
245					780					785					790		
247	tta	ttg	gat	ttg	ttg	agc	ttc	acc	tat	caa	ggt	gcc	cga	gga	atg	gag	2815
248	Leu	Leu	Asp	Leu	Leu	Ser	Phe	Thr	Tyr	Gln	Val	Ala	Arg	Gly	Met	Glu	
249					795					800					805		
251	ttt	ttg	gct	tca	aaa	aat	tgt	gtc	cac	cgt	gat	ctg	gct	gct	cgc	aac	2863
252	Phe	Leu	Ala	Ser	Lys	Asn	Cys	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	
253					810					815					820		
255	gtc	ctc	ctg	gca	caa	gga	aaa	att	gtg	aag	atc	tgt	gac	ttt	ggc	ctg	2911
256	Val	Leu	Leu	Ala	Gln	Gly	Lys	Ile	Val	Lys	Ile	Cys	Asp	Phe	Gly	Leu	
257		825						830							835		
259	gcc	aga	gac	atc	atg	cat	gat	tcg	aac	tat	gtg	tcg	aaa	ggc	agt	acc	2959

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263	ttt	ctg	ccc	gtg	aag	tgg	atg	gct	cct	gag	agc	atc	ttt	gac	aac	ctc	3007
264	Phe	Leu	Pro	Val	Lys	Trp	Met	Ala	Pro	Glu	Ser	Ile	Phe	Asp	Asn	Leu	
265					860					865					870		
267	tac	acc	aca	ctg	agt	gat	gtc	tgg	tct	tat	ggc	att	ctg	ctc	tgg	gag	3055
268	Tyr	Thr	Thr	Leu	Ser	Asp	Val	Trp	Ser	Tyr	Gly	Ile	Leu	Leu	Trp	Glu	
269					875				880					885			
271	atc	ttt	tcc	ctt	ggt	ggc	acc	cct	tac	ccc	ggc	atg	atg	gtg	gat	tct	3103
272	Ile	Phe	Ser	Leu	Gly	Gly	Thr	Pro	Tyr	Pro	Gly	Met	Met	Val	Asp	Ser	
273					890				895					900			
275	act	ttc	tac	aat	aag	atc	aag	agt	ggg	tac	cgg	atg	gcc	aag	cct	gac	3151
276	Thr	Phe	Tyr	Asn	Lys	Ile	Lys	Ser	Gly	Tyr	Arg	Met	Ala	Lys	Pro	Asp	
277		905					910					915					
279	cac	gct	acc	agt	gaa	gtc	tac	gag	atc	atg	gtg	aaa	tgc	tgg	aac	agt	3199
280	His	Ala	Thr	Ser	Glu	Val	Tyr	Glu	Ile	Met	Val	Lys	Cys	Trp	Asn	Ser	
281	920					925					930				935		
283	gag	ccg	gag	aag	aga	ccc	tcc	ttt	tac	cac	ctg	agt	gag	att	gtg	gag	3247
284	Glu	Pro	Glu	Lys	Arg	Pro	Ser	Phe	Tyr	His	Leu	Ser	Glu	Ile	Val	Glu	
285					940					945					950		
287	aat	ctg	ctg	cct	gga	caa	tat	aaa	aag	agt	tat	gaa	aaa	att	cac	ctg	3295
288	Asn	Leu	Leu	Pro	Gly	Gln	Tyr	Lys	Lys	Ser	Tyr	Glu	Lys	Ile	His	Leu	
289					955				960					965			
291	gac	ttc	ctg	aag	agt	gac	cat	cct	gct	gtg	gca	cgc	atg	cgt	gtg	gac	3343
292	Asp	Phe	Leu	Lys	Ser	Asp	His	Pro	Ala	Val	Ala	Arg	Met	Arg	Val	Asp	
293			970					975					980				
295	tca	gac	aat	gca	tac	att	ggt	gtc	acc	tac	aaa	aac	gag	gaa	gac	aag	3391
296	Ser	Asp	Asn	Ala	Tyr	Ile	Gly	Val	Thr	Tyr	Lys	Asn	Glu	Glu	Asp	Lys	
297		985					990					995					
299	ctg	aag	gac	tgg	gag	ggt	ggt	ctg	gat	gag	cag	aga	ctg	agc	gct		3436
300	Leu	Lys	Asp	Trp	Glu	Gly	Gly	Leu	Asp	Glu	Gln	Arg	Leu	Ser	Ala		
301	1000					1005					1010						
303	gac	agt	ggc	tac	atc	att	cct	ctg	cct	gac	att	gac	cct	gtc	cct		3481
304	Asp	Ser	Gly	Tyr	Ile	Ile	Pro	Leu	Pro	Asp	Ile	Asp	Pro	Val	Pro		
305	1015					1020					1025						
307	gag	gag	gag	gac	ctg	ggc	aag	agg	aac	aga	cac	agc	tcg	cag	acc		3526
308	Glu	Glu	Glu	Asp	Leu	Gly	Lys	Arg	Asn	Arg	His	Ser	Ser	Gln	Thr		
309	1030					1035					1040						
311	tct	gaa	gag	agt	gcc	att	gag	acg	ggt	tcc	agc	agt	tcc	acc	ttc		3571
312	Ser	Glu	Glu	Ser	Ala	Ile	Glu	Thr	Gly	Ser	Ser	Ser	Ser	Thr	Phe		
313	1045					1050					1055						
315	atc	aag	aga	gag	gac	gag	acc	att	gaa	gac	atc	gac	atg	atg	gac		3616
316	Ile	Lys	Arg	Glu	Asp	Glu	Thr	Ile	Glu	Asp	Ile	Asp	Met	Met	Asp		
317	1060					1065					1070						
319	gac	atc	ggc	ata	gac	tct	tca	gac	ctg	gtg	gaa	gac	agc	ttc	ctg		3661
320	Asp	Ile	Gly	Ile	Asp	Ser	Ser	Asp	Leu	Val	Glu	Asp	Ser	Phe	Leu		
321	1075					1080					1085						
323	taa	ctggcggatt	cgaggggttc	cttccacttc	tggggccacc	tctggatccc											3714
325	gttcagaaaa	ccactttatt	gcaatgcgga	ggttgagagg	aggacttggt	tgatgtttaa											3774

(from sequence 19)

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6

tgtatttggt cttttttata g ca aca tca gag ctg gat cta gaa atg gaa 6183
Ala Thr Ser Glu Leu Asp Leu Glu Met Glu
insert → 210 215
gct ctt aaa acc gtg tat aag tca ggg gaa acg att gtg gtc acc tgt 6231
Ala Leu Lys Thr Val Tyr Lys Ser Gly Glu Thr Ile Val Val Thr Cys
220 225 230 235

The above is a sample of several
amino acid numbers inserted in
sequence 19.

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:19; N Pos. 10597,10598,10599,10600,10601,10602,10603,10604,10605,10606
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Seq#:19; N Pos. 10617,10618,10619,10620,10621,10622,10623,10624,10625,10626
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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/517,905

DATE: 12/22/2004
TIME: 16:05:54

Input Set : A:\335026.txt
Output Set: N:\CRF4\12222004\J517905.raw

Seq#:19; N Pos. 59781,59782,59783,59784,59785,59786,59787,59788,59789,59790
Seq#:19; N Pos. 59791,59792,59793,59794,59795,59796,59797,59798,59799,59800
Seq#:19; N Pos. 59801,59802,59803,59804,59805,59806,59807,59808,59809,59810
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Seq#:19; N Pos. 59841,59842,59843,59844,59845,59846,59847,59848,59849,59850

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/517,905

DATE: 12/22/2004

TIME: 16:05:54

Input Set : A:\335026.txt

Output Set: N:\CRF4\12222004\J517905.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:4793 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19
L:4794 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:19
L:4901 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19
L:4972 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:10557
M:341 Repeated in SeqNo=19
L:10171 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19
L:10246 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:19
L:10328 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:19
L:10740 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:19
L:10886 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:19
L:13371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:2047
M:341 Repeated in SeqNo=26
L:13881 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:544
M:341 Repeated in SeqNo=27